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NEWS 13	JUl 14	FSTA enhanced with Japanese patents
NEWS 14	JUl 19	Coverage of Research Disclosure reinstated in DWPI
NEWS 15	AUG 09	INSPEC enhanced with 1898-1968 archive
NEWS 16	AUG 28	ADISCTI Reloaded and Enhanced
NEWS 17	AUG 30	CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 18	SEP 11	CA/CAplus enhanced with more pre-1907 records

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FILE LAST UPDATED: 13 Sep 2006 (20060913/ED)

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=> s wo9926913/pn
L1 1 WO9926913/PN

=> d l1 iall

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:354470 CAPLUS
DOCUMENT NUMBER: 130:354716
ENTRY DATE: Entered STN: 09 Jun 1999
TITLE: Method and equipment for producing fatty acid methyl ester
INVENTOR(S): Ergun, Nurhan; Panning, Peter
PATENT ASSIGNEE(S): Energea Handels G.m.b.H., Austria
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
INT. PATENT CLASSIF.:
MAIN: C07C067-03
SECONDARY: C07C069-52; B01J019-00
CLASSIFICATION: 52-1 (Electrochemical, Radiational, and Thermal Energy Technology)
Section cross-reference(s): 47, 51
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9926913	A1	19990603	WO 1998-AT284	19981123 <--
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AT 9701990	A	19991215	AT 1997-1990	19971124
CA 2311400	AA	19990603	CA 1998-2311400	19981123
AU 9913262	A1	19990615	AU 1999-13262	19981123

AU 741892	B2	20011213			
EP 1034160	A1	20000913	EP 1998-956710		19981123
EP 1034160	B1	20020605			
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
BR 9815003	A	20001003	BR 1998-15003		19981123
EE 200000302	A	20010615	EE 2000-302		19981123
EE 4110	B1	20030815			
JP 2001524553	T2	20011204	JP 2000-522071		19981123
TR 200001488	T2	20011221	TR 2000-200001488		19981123
NZ 504648	A	20020201	NZ 1998-504648		19981123
AT 218531	E	20020615	AT 1998-956710		19981123
PT 1034160	T	20021031	PT 1998-956710		19981123
ES 2178282	T3	20021216	ES 1998-956710		19981123
CN 1117063	B	20030806	CN 1998-811443		19981123
US 6440057	B1	20020827	US 2000-530943		20000510
BG 104444	A	20010131	BG 2000-104444		20000516
NO 2000002570	A	20000719	NO 2000-2570		20000519
HR 2000000428	A1	20010430	HR 2000-428		20000623
HK 1030929	A1	20030411	HK 2001-101486		20010228
US 2002013486	A1	20020131	US 2001-964386		20010928
US 7045100	B2	20060516			
PRIORITY APPLN. INFO.:			AT 1997-1990	A	19971124
			AT 1998-1807	A	19981030
			WO 1998-AT284	W	19981123
			US 2000-530943	A3	20000510

PATENT CLASSIFICATION CODES:

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9926913	ICM	C07C067-03
	ICS	C07C069-52; B01J019-00
	IPCI	C07C0067-03 [ICM,6]; C07C0067-00 [ICM,6,C*]; C07C0069-52 [ICS,6]; C07C0069-00 [ICS,6,C*]; B01J0019-00 [ICS,6]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
	ECLA	B01J019/24; C07C067/03+69/52
AT 9701990	IPCI	C10L0001-18 [ICM,6]; C10L0001-10 [ICM,6,C*]; C10L0001-08 [ICS,6]; C10L0001-00 [ICS,6,C*]
	IPCR	C10L0001-00 [I,C*]; C10L0001-08 [I,A]; C10L0001-10 [I,C*]; C10L0001-18 [I,A]
CA 2311400	IPCI	C07C0067-03 [ICM,6]; C07C0067-00 [ICM,6,C*]; B01J0019-00 [ICS,6]; C07C0069-52 [ICS,6]; C07C0069-00 [ICS,6,C*]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
AU 9913262	IPCI	C07C0067-03 [ICM,6]; C07C0067-00 [ICM,6,C*]; C07C0069-52 [ICS,6]; C07C0069-00 [ICS,6,C*]; B01J0019-00 [ICS,6]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
EP 1034160	IPCI	C07C0067-03 [ICM,6]; C07C0067-00 [ICM,6,C*]; C07C0069-52 [ICS,6]; C07C0069-00 [ICS,6,C*]; B01J0019-00 [ICS,6]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
BR 9815003	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
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EE 200000302	IPCI	B01J0019-00 [ICM,7]; C07C0067-03 [ICS,7]; C07C0067-00 [ICS,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00

		[I,C*]; C07C0067-03 [I,A]
JP 2001524553	IPCI	C10L0001-08 [ICM,7]; C10L0001-00 [ICM,7,C*]; B01D0003-00 [ICS,7]; B01D0017-022 [ICS,7]; B01D0017-02 [ICS,7,C*]; B01D0061-14 [ICS,7]; C07C0067-03 [ICS,7]; C07C0067-00 [ICS,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
TR 200001488	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
NZ 504648	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
AT 218531	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
	IPCR	B01J0019-00 [I,A]; B01J0019-00 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]; C07C0069-00 [I,C*]; C07C0069-52 [I,A]
PT 1034160	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
ES 2178282	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
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CN 1117063	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
	ECLA	B01J019/24; C07C067/03+69/52
US 6440057	IPCI	C11C0001-00 [ICM,7]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
	NCL	554/170.000; 554/167.000; 554/169.000
	ECLA	B01J019/24; C07C067/03+69/52
BG 104444	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
NO 2000002570	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
HR 2000000428	IPCI	C07C0067-03 [ICM,7]; C07C0067-00 [ICM,7,C*]; C07C0069-52 [ICS,7]; C07C0069-00 [ICS,7,C*]; B01J0019-00 [ICS,7]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
HK 1030929	IPCI	C07C [ICM,7]; B01J [ICS,7]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
US 2002013486	IPCI	B01J0019-24 [I,A]; B01J0003-00 [I,A]
	IPCR	B01J0019-24 [I,A]; B01J0019-24 [I,C*]; C07C0067-00 [I,C*]; C07C0067-03 [I,A]
	NCL	554/174.000; 422/186.000; 422/211.000
	ECLA	B01J019/24; C07C067/03+69/52

ABSTRACT:
The present invention relates to a method and an equipment for producing fatty

acid Me ester, more particularly diesel fuel for vehicles, wherein the method allows for a rational production in economical equipment, preferably in large-scale industrial equipment. A container contains saturated and unsatd. higher fatty substances from vegetal and/or animal origin. A tank is provided for a potent alkaline solution, particularly a potassium solution, while another tank is provided for
the alc., particularly for methanol. The alkaline solution is dissolved in the alc. and this operation is carried out in a mixing vessel. The container containing the fatty substances and the mixing vessel are connected at the transesterification section. The reaction or transesterification section comprises a static mixer that creates a whirlpool in the liquid due to the action of high or powerful turbulence. The phase separation surfaces are thus substantially increased so that chemical balance can be achieved more rapidly. The liquid which is at the chemical balance state is then supplied to a distillation unit. The target substances, such as the fatty acid Me ester, are correspondingly removed from the stages of the distillation unit. This invention enables for the first time the production of diesel
fuel such as eco-diesel or bio-diesel in ecol. optimal conditions of production while maintaining all the advantages thereof.

SUPPL. TERM: biodiesel fatty acid methyl ester

INDEX TERM: Fatty acids, uses
ROLE: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(Me esters; method and equipment for producing fatty acid Me ester)

INDEX TERM: Diesel fuel substitutes
Diesel fuel substitutes
(biodiesel; method and equipment for producing fatty acid Me ester)

INDEX TERM: Materials
(fatty, vegetal and/or animal; method and equipment for producing fatty acid Me ester)

INDEX TERM: Ceramic membranes
Transesterification
(method and equipment for producing fatty acid Me ester)

INDEX TERM: Glass, uses
ROLE: TEM (Technical or engineered material use); USES (Uses)
(porous, support; method and equipment for producing fatty acid Me ester)

INDEX TERM: Fats and Glyceridic oils, reactions
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(saturated; method and equipment for producing fatty acid Me ester)

INDEX TERM: Silicates, uses
ROLE: TEM (Technical or engineered material use); USES (Uses)
(support; method and equipment for producing fatty acid Me ester)

INDEX TERM: Fats and Glyceridic oils, reactions
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(unsatd.; method and equipment for producing fatty acid Me ester)

INDEX TERM: 1314-23-4, Zirconia, uses 13463-67-7, Titania, uses
ROLE: TEM (Technical or engineered material use); USES (Uses)
(membrane; method and equipment for producing fatty acid Me ester)

INDEX TERM: 67-56-1, Methanol, reactions 1310-58-3, Potassium hydroxide, reactions
ROLE: RCT (Reactant); RACT (Reactant or reagent)
(method and equipment for producing fatty acid Me ester)

INDEX TERM: 1344-28-1, Alumina, uses

ROLE: TEM (Technical or engineered material use); USES (Uses)
(support; method and equipment for producing fatty acid Me ester)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD.

REFERENCE(S):

(1) Henkel Kommanditgesellschaft Auf Aktien; EP 0041204 A 1981 CAPLUS
(2) Metallgesellschaft A; EP 0523767 A 1993 CAPLUS
(3) Vogel & Noot Industrieanlagenbau Gesellschft MBH; WO 9200268 A 1992 CAPLUS

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NEWS 17	AUG 30	CA(SM)/CAplus(SM) Austrian patent law changes
NEWS 18	SEP 11	CA/CAplus enhanced with more pre-1907 records

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NEWS X25	X.25 communication option no longer available

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 14 Sep 2006  VOL 145 ISS 12
FILE LAST UPDATED: 13 Sep 2006  (20060913/ED)

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=> s (fatty acid or oil or fat) (s) esterif7
7 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s (fatty acid or oil or fat) (s) esterif?
         369339 FATTY
             14 FATTIES
         369343 FATTY
                  (FATTY OR FATTIES)
        4210852 ACID
        1540303 ACIDS
        4705275 ACID
                  (ACID OR ACIDS)
         326821 FATTY ACID
                  (FATTY(W)ACID)
         748023 OIL
         359137 OILS
         844964 OIL
                  (OIL OR OILS)
         181851 FAT
         116429 FATS
         237807 FAT
                  (FAT OR FATS)
         129366 ESTERIF?
L1        15069 (FATTY ACID OR OIL OR FAT) (S) ESTERIF?

=> s l1 and (dispersion or droplet)
         332478 DISPERSION
          58615 DISPERSIONS
         358411 DISPERSION
                  (DISPERSION OR DISPERSIONS)
          30423 DROPLET
          43580 DROPLETS
          60085 DROPLET
                  (DROPLET OR DROPLETS)
L2          295 L1 AND (DISPERSION OR DROPLET)
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=> s l2 and (acid catalyst or base catalyst)
        4210852 ACID
        1540303 ACIDS
        4705275 ACID
                  (ACID OR ACIDS)
         734632 CATALYST
         737331 CATALYSTS
         942979 CATALYST
                  (CATALYST OR CATALYSTS)
          36737 ACID CATALYST
                  (ACID(W)CATALYST)
         678565 BASE
         153518 BASES
         771976 BASE
                  (BASE OR BASES)
         734632 CATALYST
         737331 CATALYSTS
         942979 CATALYST
                  (CATALYST OR CATALYSTS)
           3890 BASE CATALYST
                  (BASE(W)CATALYST)
L3            3 L2 AND (ACID CATALYST OR BASE CATALYST)

=> s l1 and globule size
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           7627 GLOBULES
          12259 GLOBULE
                  (GLOBULE OR GLOBULES)
        1008105 SIZE
         134432 SIZES
        1080435 SIZE
                  (SIZE OR SIZES)
            375 GLOBULE SIZE
                  (GLOBULE(W)SIZE)
L4            0 L1 AND GLOBULE SIZE

=> s l2 and droplet (3a) size
          30423 DROPLET
          43580 DROPLETS
          60085 DROPLET
                  (DROPLET OR DROPLETS)
        1008105 SIZE
         134432 SIZES
        1080435 SIZE
                  (SIZE OR SIZES)
           8008 DROPLET (3A) SIZE
L5           11 L2 AND DROPLET (3A) SIZE

=> s l5 and (acid or base)
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        4705275 ACID
                  (ACID OR ACIDS)
         678565 BASE
         153518 BASES
         771976 BASE
                  (BASE OR BASES)
L6            8 L5 AND (ACID OR BASE)

=> s l6 or l3
L7           11 L6 OR L3

=> d l7 ibib ab 1-11
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L7 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1154388 CAPLUS
DOCUMENT NUMBER: 142:58715
TITLE: Aqueous pearlescent compositions for fiber finishing.
INVENTOR(S): Bigorra, Llosas Joaquim; Bonastre, Gilabert Nuria; Sanchez, Agustin
PATENT ASSIGNEE(S): Cognis Iberia, S.L., Spain
SOURCE: Eur. Pat. Appl., 7 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1491617	A1	20041229	EP 2003-14144	20030624
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005015997	A2	20050120	JP 2004-185140	20040623
US 2005022312	A1	20050203	US 2004-876037	20040624

PRIORITY APPLN. INFO.: EP 2003-14144 A 20030624
OTHER SOURCE(S): MARPAT 142:58715
AB Aqueous pearlescent compns. for pearlescent finishing fibers are prepared by quaternization of triethanolamine esters with C12-22 fatty acids with the controlling degree of esterification [at trithanolamine-fatty acid ratios (1:1.3) - (1:1.4)], using alkylhalides and dialkylsulfates as an alkylating agent in the presence of aliphatic alcs. or/and polyols. Thus, heating a mixture containing 596 - 943 g of stearic acid and 1.2 - 1.8 g of hypophosphoric acid (catalyst) at 70°, adding at reduced pressure 363 g of triethanolamine, heating 2 h at 160° and 2 mbar, solving the resulting ester in propylene glycol, adding 104 g of dimethylsulfate and heating 4 h at 65° gave a dispersion, which provides a sponge cloth with a pearlescent effect.
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:903460 CAPLUS
DOCUMENT NUMBER: 143:45255
TITLE: Study on new synthesis technology and application of phosphate fat-liquoring agent
AUTHOR(S): Cao, Xiang-yu; Xong, Xu-mei; Huang, Jun-li
CORPORATE SOURCE: School of Municipal and Environmental Engineering, Harbin University of Technology, Harbin, 150090, Peop. Rep. China
SOURCE: Huagong Keji (2004), 12(3), 11-14
CODEN: HUKEFE; ISSN: 1008-0511
PUBLISHER: Huagong Keji Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB Based on castor oil and fish oil as mixed oil, a new phosphate fat-liquoring agent was synthesized by solid acid as catalyst and P2O5 with solvent dispersion. Synthetic principles of ester exchanging reaction and phosphating reaction were investigated. Many better properties in the ester exchanging reaction are appeared by using solid acid catalyst such as retrievable catalyst with high activity, high yield of reaction, pale color and good stability of ester exchanging fish oil. Because using adding way of P2O5 with solvent dispersion, the phosphating reaction condition is more moderate. Furthermore, the molar ratio of monophosphate to double-phosphate, conversion rate of P2O5 and gross acid value are higher than those by used

direct adding way of P2O5 in the product. The synthesized phosphate was mixed with the other materials to obtain phosphate fat-liquoring agent. The applied exptl. results show that finished leather has outstanding properties including fullness, softness, oil feel and silk feel.

L7 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:259541 CAPLUS
DOCUMENT NUMBER: 141:53111
TITLE: Properties of W/O emulsions stabilized with acylglycerol emulsifiers modified with zinc carboxylates
AUTHOR(S): Szelag, Halina; Macierzanka, Adam; Pawlowicz, Roman
CORPORATE SOURCE: Department of the Technology of Fats and Detergents Chemical Faculty, Gdansk University of Technology, Gdansk, Pol.
SOURCE: Journal of Dispersion Science and Technology (2004), 25(2), 173-182
CODEN: JDTEDS; ISSN: 0193-2691
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The stability of water/paraffin oil and some water/vegetable oil dispersions stabilized by acylglycerol emulsifiers modified with zinc carboxylates have been evaluated. The acylglycerol emulsifiers were prepared by esterification of glycerol with fatty acid in the presence of zinc fatty acid carboxylate. The modification of surface activity of the emulsifiers was obtained by using defined hydrocarbon chain lengths of monoacylglycerols and carboxylates. Using conductometric, microscopic and calorimetric (differential scanning calorimetry, DSC) methods, the influence of the following parameters on dispersion stability was studied: emulsifier composition and concentration, phase volume ratio, emulsion droplet diameter, emulsion stability index, and index of coalescence.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:742796 CAPLUS
DOCUMENT NUMBER: 139:383069
TITLE: Fatty acid-polyol ester emulsifiers synthesized from renewable raw materials
AUTHOR(S): Szelag, Halina; Macierzanka, Adam
CORPORATE SOURCE: Katedra Technol. Tluszczow i Detergentow, Wydz. Chem., Politech. Gdanska, Gdansk, 80-952, Pol.
SOURCE: Przemysl Chemiczny (2003), 82(8-9), 1180-1183
CODEN: PRCHAB; ISSN: 0033-2496
PUBLISHER: Wydawnictwo SIGMA-NOT
DOCUMENT TYPE: Journal
LANGUAGE: Polish
AB Emulsifiers with a defined hydrophilic-lipophilic balance (HLB) were obtained by esterification of Radiacid 416 (containing as main components stearic acid 64.4, palmitic acid 27.9, and myristic acid 2.1%) or individual C12-18 acids with glycerol, ethylene glycol, or propylene glycol in the presence of K, Na, Zn, or Mg carboxylates. These emulsifiers were used to obtain O/W and W/O paraffin oil-based or paraffin oil-ceresin-based model emulsions at room temperature Emulsifiers obtained in the presence of ethylene glycol and propylene glycol and Na alkanoate, showed HLB 4.5-5.8 and 3.5-4.6, resp. For emulsifiers obtained from stearin and C12, C14, C16, and C18 fatty acids in the presence of K alkanoate, the HLB values ranged from 5.4 to 7.7; with lauroyl glycerol emulsifiers modified with Na, K, Mg or Zn soap, the HLB values were 7.9, 7.7. 5.5 and 5.6, resp. Droplet size distribution (<3 μm, 80-90%) in the model emulsions varied only slightly with HLB emulsifiers.

L7 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:437622 CAPLUS
DOCUMENT NUMBER: 137:369089
TITLE: Emulsifying properties of depolymerized citrus pectin: role of the protein fraction
AUTHOR(S): Akhtar, Mahmood; Dickinson, Eric; Mazoyer, Jacques; Langendorff, Virginie
CORPORATE SOURCE: Procter Department of Food Science, University of Leeds, Leeds, LS2 9JT, UK
SOURCE: Special Publication - Royal Society of Chemistry (2002), 278(Gums and Stabilisers for the Food Industry 11), 311-317
CODEN: SROCDO; ISSN: 0260-6291
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The surface and emulsifying properties of depolymd. citrus pectin were examined in relation to the adsorbed pectin concns. and the interfacial protein content, as well as their resp. contribution to the formulation of a stable oil-in-water emulsion. The samples of depolymd. pectin were prepared from citrus peels by acid hydrolysis, and were enzymically treated for demethoxylation to obtain various degrees of methoxylation. The effects of pH, pectin concentration, and degree of esterification on the emulsion stability were investigated. Results show that the depolymd. citrus pectin can be used as an effective emulsifying agent for formulating food emulsions under acidic conditions. Rapeseed oil-in-water emulsions made with depolymd. pectin of mol. weight 7 kDa and degree of esterification 70% at relatively low pectin/ oil ratios were found to have excellent stability in terms of average droplet size and creaming behavior over a two-month storage period. Emulsions made at pH 4.7 were found to be more stable than those made under neutral pH conditions. The pectin and protein anal. of the serum layers shows that only a modest proportion of the pectin used as emulsifier actually adsorbs on the droplets, and that this fraction contains most of the protein present in the aqueous phase before emulsification. In addition, the non-adsorbed pectin in the serum layer separated by centrifugation was found to be a very poor emulsifying agent. Hence, the presence of the protein moiety in the depolymd. pectin plays a major functional role in enhancing the emulsification properties of pectin following depolymn.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:716379 CAPLUS
DOCUMENT NUMBER: 131:300813
TITLE: The behavior of modified monoacylglycerol emulsifiers in emulsion systems
AUTHOR(S): Szelag, Halina; Zwierzykowski, Wlodzimierz
CORPORATE SOURCE: Department of the Technology of Fat and Detergents, Technical University of Gdansk, Gdansk, 89-952, Pol.
SOURCE: Colloids and Surfaces, A: Physicochemical and Engineering Aspects (1999), 155(2-3), 349-357
CODEN: CPEAEH; ISSN: 0927-7757
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Modified acylglycerol emulsifiers with programmed values of hydrophile-lipophile balance were synthesized in situ by esterification of glycerol with fatty acids in the presence of fatty acid soaps. The modification of the surface activity of the emulsifier was obtained by programming sodium or potassium soap content and hydrocarbon chain length, as well as the

length of the fatty acid acyls in the monoacylglycerol. The effectiveness of the synthesized emulsifiers was investigated in model O/W emulsion systems. The influence of the phase volume ratio on emulsion inversion, stability and emulsion droplet size were studied.

L7 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:255849 CAPLUS
DOCUMENT NUMBER: 131:46349
TITLE: Acylglycerol emulsifiers with modified values of hydrophile-lipophile balance. Synthesis and properties
AUTHOR(S): Szelag, Halina
CORPORATE SOURCE: Pol.
SOURCE: Zeszyty Naukowe Politechniki Gdanskiej, Chemia (1998), 39, 3-66
CODEN: ZNGCAU; ISSN: 0416-7341
PUBLISHER: Wydawnictwo Politechniki Gdanskiej
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Polish
AB A review with 163 refs. The acyl glycerol emulsifiers with programmed HLB values were prepared by esterification of glycerol with fatty acids in presence of fatty acid soaps formed in situ. The modification of surface activity of the emulsifier was obtained by programming sodium or potassium soap content and hydrocarbon chain length, as well as the length of the acyl group in the monoacyl glycerol (C12-C18). The kinetic studies proved, that esterification of glycerol with fatty acid is a first order consecutive reaction with monoacyl glycerol as a stable intermediate product. The corresponding rate consts. and activation energies were calculated Knowing the reaction rate consts., the maximum concentration of monoacylglycerols and sodium or potassium carboxylates in the modified acyl glycerol emulsifiers was investigated to find the influence of the product composition on the interfacial tension in the paraffin oil/water system. The effectiveness of the synthesized emulsifiers was investigated in model emulsion systems. The influence of the phase volume ration on emulsion inversion, stability and emulsion droplet size was studied. It was stated that the reaction product may be directly used as emulsifier for the preparation of O/W emulsions.

L7 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:572215 CAPLUS
DOCUMENT NUMBER: 127:250306
TITLE: Optimization of surface properties of fine steel sheets by using innovative rolling oil concept
AUTHOR(S): Sommer, D.; Grunenberg, Mr.
CORPORATE SOURCE: Hoesch Stahl AG, Dortmund, D-44145, Germany
SOURCE: Commission of the European Communities, [Report] EUR (1997), EUR 16061, 1-72
CODEN: CECED9; ISSN: 1018-5593
DOCUMENT TYPE: Report
LANGUAGE: German
AB To assess properties of rolling oils, knowledge of their composition is one of the most important pre-conditions. Above all, the anal. recording of the emulsifying agent packages and fatty acid esters is decisive since these substances have a considerable influence on the lubrication characteristics of the emulsion and can considerably improve properties of steel surfaces. Several methods were worked out to contribute to an improved and faster sample preparation: (1) column chromatog. separation methods which make it possible to individually characterize the rolling oil components and (2) a method for separation of rolling oils from their emulsions by means of which the time required for sample preparation step can be markedly decreased. The chain length distribution of the polyethoxylates used as

emulsifying agents in rolling oils is the parameter which is decisive for many characteristic values of the emulsion (water miscibility, emulsive quality, emulsion stability, devisibility). A thin-layer chromatog. anal. method is presented with which a separation of the polyethoxylates according to the ethoxy chain length, as well as the determination of the emulsifying agent concentration is possible. Moreover, the thin-layer chromatog. separation and allocation of the fatty acid glycerides contained in rolling oils was successful on the basis of various mol. parameters such as degree of saturation, fatty acid type, and degree of esterification of glycerin. It is possible to characterize rolling oil constituents more easily than before and to carry out proven anal. methods with considerably less time consumption due to improved sample preparation techniques. Influence of temperature, oil and foreign-oil concentration on performance of the emulsifying agent and lubrication characteristics of classic and droplet-stabilized rolling oils which influence surface of the fine sheets was examined The vaporization behavior of rolling oils at different temps. was tested by using a thermo-desorber, and the vapor phase was analyzed by gas chromatog. Thermal stresses on rolling oils during the production process are simulated. Anal. of vaporizable constituents permits an evaluation of the oils also from the point of view of works safety. The size exclusion chromatog. was used for anal. of rolling oil components of higher mol. weight Resin-forming reactions which occur during the rolling process in the oil, as well as polyol-polyesters with a high mol. weight and emulsifying properties were detected. Rolling oil constituents of high mol. weight such as those contained in droplet-stabilized rolling oils can be analyzed with regard to their quality and quantity. During industrial testing, 3,500 ton steel was rolled with a cationically stabilized rolling oil, and technol. values were continuously monitored. The results were satisfactory, the strip cleanliness and emulsifying properties were within the range of results with nonionic emulsifying agent systems. To simulate the stresses acting on the emulsion during the rolling process on a laboratory scale, long-time spray tests were carried out in which a rolling oil emulsion was continuously pumped around in a 20 L vessel. Emulsion parameters, such as neutralization and saponification values, droplet size distribution, and emulsifying agent composition were continuously monitored. The spray tests can be used as a pilot method for testing new rolling oil formulations before industrial use. It was possible to evaluate qual. and quant. fundamental parameters that have a significant influence on quality of fine sheets during production

L7 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:471992 CAPLUS
DOCUMENT NUMBER: 117:71992
TITLE: Starch hydrolyzate dicarboxylic acid esters as encapsulating agents
INVENTOR(S): Morehouse, Alpha L.
PATENT ASSIGNEE(S): Grain Processing Corp., USA
SOURCE: Can. Pat. Appl., 27 pp.
CODEN: CPXXEB
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
CA 2034639	AA	19911130	CA 1991-2034639		19910121
CA 2034639	C	20020514			
US 5354559	A	19941011	US 1993-42757		19930406
US 5720978	A	19980224	US 1995-577383		19951222
PRIORITY APPLN. INFO.:			US 1990-529340	A	19900529
			US 1991-809215	B1	19911216

US 1993-42757 A3 19930406
US 1994-245203 B3 19940517

OTHER SOURCE(S): MARPAT 117:71992

AB The title agents useful for oils, perfumes, detergents, flavoring agents, etc. are esters of starch hydrolyzates with (optionally alkyl-, alkenyl-, aralkyl-, aralkenyl-substituted) C3-4 dioic acids. Thus, a 50% solution of 700 g maltodextrin (Maltrin M-100; dextrose equiv value 10) in water at pH 8 was combined with 14 g n-octenylsuccinic anhydride while stirring, NaOH added to maintain the pH at .apprx.8, and after 1 h, mixed with 1% (ester basis) Al sulfate followed by freeze-drying and oven-drying to give a powder which when used (30 g) with 45 g water and 7 mL orange peel oil gave an emulsion with good stability and oil droplet size 2-8 μm.

L7 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1970:474488 CAPLUS
DOCUMENT NUMBER: 73:74488
TITLE: FFA [free fatty acid] -3H uptake by perfused adipose tissue: electron microscopic autoradiographic study
AUTHOR(S): Stein, Olga; Scow, Robert O.; Stein, Yechezkiel
CORPORATE SOURCE: Hadassah Med. Sch., Hebrew Univ., Jerusalem, Israel
SOURCE: American Journal of Physiology (1970), 219(2), 510-18
CODEN: AJPHAP; ISSN: 0002-9513
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Uptake and metabolism of oleic-3H acid was studied in lipid-depleted parametrial fat bodies of starved-refed rats. The tissues were perfused in vitro with blood containing FFA-3H for 0.4-3.5 min and examined at once, or postperfused with unlabeled blood for 2-6.5 min and then examined Nearly all of the oleic-3H acid in the tissue was esterified in postperfused tissues whereas only 60-80% was esterified in tissues examined at once; 9-17% of the esterified fatty acid-3H was in diglyceride and the rest was in triglyceride. More than 80% of the autoradiographic reactions produced by the tissue were located over the lipid droplets of the fat cells. Autoradiographic grains were also seen over the cytoplasm of fat cell, and rarely over interstitial tissue or endothelial cells. The uniform distribution of silver grains seen over lipid droplets of all sizes suggests that newly synthesized glycerides are transferred at once to the nearest lipid droplets and that smaller droplets coalesce to form the larger droplets. The findings demonstrate that plasma FFA are taken up, esterified, and stored very quickly by fat cells.

L7 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1966:85611 CAPLUS
DOCUMENT NUMBER: 64:85611
ORIGINAL REFERENCE NO.: 64:16145f-g
TITLE: Self-polishing emulsions
INVENTOR(S): Pohlemann, Heinz; Hasse, Karl; Lehmann, Bernhardt; Kindscher, Wolfgang
PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik AG
SOURCE: 3 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1210114		19660203	DE 1963-B74470	19631130

BE 656430 BE

PRIORITY APPLN. INFO.: DE 19631130

AB The emulsions contain, besides waxes, a polymer of styrene, a methacrylate, an acrylic acid glycol monoester, an unsatd. fatty acid, and an emulsifier. Thus, an emulsion 35 from bleached and esterified montan wax 15, microcryst. wax (m. 83-5°) 3, oil fatty acid 2, methoxypropylamine 1.5, and H2O 78 was mixed with 15 parts polymer dispersion (styrene 83, Me methacrylate 10, Bu acrylate 5, 1,4-butanediol monoacrylate 2, oil fatty acid 4, acrylic acid 0.5, Na monosulfate (of reaction product of 1 mole isooctylphenol and 25 moles ethylene oxide) 8). Films of these emulsions have improved gloss, H2O resistance, and clarity.